REMARKS

Favorable reconsideration of this application in light of the following discussion is respectfully requested.

Claims 2-7 and 9-16 remain pending in the present application. Applicant respectfully requests the Examiner, preliminary to the filing of an Appeal Brief, please consider the following remarks.

By way of summary, the Official Action presents the following issues: Claims 2-7 and 9-16 are rejected under 35 U.S.C. § 103(a) as unpatentable over Markandey (U.S. Patent No. 6,340,992) in view of Hiroi (U.S. Patent No. 6,204,887); and Claims 15 and 16 are indicated as allowed.

Applicant appreciatively acknowledges the indication of allowable subject matter as recited in Claims 15 and 16.

REJECTION UNDER 35 U.S.C. § 103

The Official Action has rejected Claims 2-7 and 9-14 under 35 U.S.C. § 103(a) as being unpatentable over Markandey in view of Hiroi. The Official Action states the combination of Markandey and Hiroi teach the invention recited in the Applicant's claims. Applicant respectfully traverses the rejection.

Claim 2 recites, *inter alia*, a picture processing apparatus including:

> "picture processing means for extracting a signal of the effective picture area from the input video signal, adjusting the picture size using the signal of the effective picture area, and combining the picture ...,
> wherein said picture processing means performs a multiple-picture displaying process for adjusting the picture sizes ... and combining pictures ... interpolated at proper timings so that desired picture sizes are obtained corresponding to the display positions on the background screen."

The picture processing means of Claim 2 extracts a signal of the effective picture area from the input video signals for images having non-picture portions and interpolates the video

signals at proper timings so that the effective image areas are displayed.[1] Claim 9 recites a picture processing method including substantially the same features as the picture processing apparatus of Claim 2.

In an exemplary embodiment of the Applicant's invention, multiple input video signals are received by the picture processing apparatus as shown in Figure 5. A data processor (5) determines whether or not an input video signal has a non-picture portion added to the periphery of the effective picture area. In operation, the picture processor (7) performs a process for placing pictures corresponding to multiple video signals at proper positions on a display (13) as shown in Figures 7C and 10D.[2] This process is performed by extracting a signal of the effective picture area from the input video signals for images having non-picture portions and interpolating the video signals at proper timings so that the effective image areas are displayed.[3]

Therefore, since the method and apparatus of the claimed invention combines the effective image areas, the images do not become excessively small during the multiple-picture display process by virtue of their non-picture portions. In this way, each respective portion of the multiple picture image areas is effectively used in its entirety during a multiple-picture display process as the letterbox and side panel portions of the image sources are not shown in the imaging area.

Conversely, Markandey describes the automatic detection of letterbox images by receiving video image data, calculating image statistics for each line of the video image, locating a desired portion of the image, and scaling the desired portion of the video image for display on a device having a predetermined aspect ratio.[4] A video source (102) outputs a

[1] Applicant's specification at least at page 14, line 25 to page 15 line 2.
[2] Id. at least at page 14, lines 6-15.
[3] Id. at least at page 14, line 25 to page 15 line 2.
[4] Markandey, column 2, lines 12-19.

letterbox video signal to a signal and format detection processor (202).[5] The signal and format detection processor (202) measures characteristics of the video signal to determine if the video signal is letterboxed.[6] After detecting the size and location of the desired image, the signal and format detection processor (202) scales the video signal to optimally fill the useable area of a display having a pre-determined aspect ratio.[7] As pointed out in the Official Action, Markandey does not teach or suggest the picture processing means for receiving, adjusting the picture sizes using the signal of the effective picture area, and combining pictures interpolated at proper timings so that desired picture sizes are obtained corresponding to the display positions on the background screen as recited in Claim 2.

The Official Action has cited Hiroi as teaching this aspect of the Applicant's invention. Yet, Hiroi describes an apparatus and method for decoding multiple images to be displayed using limited resources. In Hiroi, a CPU (110) receives encoded digital video signals and information from input device (104) which receives user input representing channel selections or window size information.[8] The video signals are stored in video memory (130), combined into a single frame, and later displayed.[9] Hiroi describes an apparatus that if the demand for system resources (i.e. processing availability or bus bandwidth) will exceed the available system resources the window size of at least one image will be reduced or the display of secondary images is limited to images with significant scene changes.[10]

Thus, Hiroi is directed to ensuring that the processing capabilities and bus bandwidth is able to support the multiple picture displays. In fact, Hiroi teaches away from using more image area in a multi-picture process since increasing the display area of the multiple pictures

[5] Id., column 3, lines 40-43.
[6] Id., column 3, lines 46-50.
[7] Id., column 3, lines 50-54.
[8] Hiroi, column 3 lines 62-65 and column 4, lines 14-20.
[9] Id., column 4, lines 27-36.
[10] Hiroi, abstract.

during multiple picture processing would increase the burden on the processor. In this regard Hiroi states:

> The amount of processing resources required to scale a set of image data tends to be a function of final image display size. Images displayed in larger windows often require more processing resources to scale than images which are to be displayed in smaller windows.
>
> It normally takes less data to represent a small image than a large image assuming the same output image resolution. Accordingly, an image which is to be displayed using a small window can usually be represented using less data than an image that is displayed using a large window. The smaller the amount of data used to represent an image, the smaller the amount of bus bandwidth required to transmit e.g., to the video frame memory 130, the image data in a given amount of time.

"A reference may be said to teach away when a person of ordinary skill in the art, upon reading the reference, would be discouraged from following the path set out in the reference, or would be led in a direction divergent from the path that was taken by the applicant." *In re Gurley*, 31 USPQ2d 1130, 1131 (Fed. Cir. 1994). To this end, "disclosures in the references that diverge from and teach away from the invention cannot be disregarded", Phillips Petroleum Company v. U.S. Steel Corp., 9 USPQ2d 1461 (Fed. Cir. 1989).

Hiroi clearly does not teach adjusting of a picture size so that desired picture sizes are obtained corresponding to display portions as recited in Claim 2, and does not cure the deficiencies of Markandey. Accordingly, neither Markandey nor Hiroi describes adjusting picture sizes in a multiple picture displaying process, and the combination of Markandey in view of Hiroi is no closer to recognizing the problem or solution thereto than Markandey taken alone.

Accordingly, it is respectfully requested that the rejection to independent Claims 2 and 9 and dependent Claims 3-7 and 10-14 under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

Should the above distinctions be found unpersuasive, Applicants respectfully request that the Examiner provide an explanation via Advisory Action pursuant to M.P.E.P §714.13 specifically rebutting the points raised herein for purposes of facilitating the appeal process.

Consequently, in view of the current amendments and in light of the above discussion, it is respectfully submitted that the present application, including Claims 2-7 and 9-16, is patentably distinguished over the prior art, in condition for allowance, and such action is respectfully requested at an early date.

Respectfully submitted,

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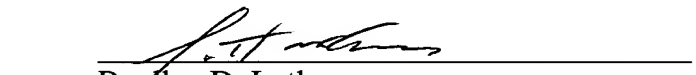

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